

### REMARKS

In a first Office Action dated September 23, 2003 (paper no. 4), the Examiner rejected claims 1-10 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over each of U.S. patent no. 6,005,848 and U.S. patent no. 6,308,079, noting that a timely filed terminal disclaimer may be used to overcome each of the rejections. The Examiner rejected claims 11-14 under 35 U.S.C. §103(a) as being unpatentable over Cook (U.S. patent no. 4,109,111) in view of Grube (U.S. patent no. 5,463,617). The rejections and objections are traversed and reconsideration is hereby respectfully requested.

The Examiner rejected claims 1-10 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over U.S. patent no. 6,308,079. In response to the rejection, the applicants are filing the suggested Terminal Disclaimer, which Terminal Disclaimer is attached hereto.

The Examiner further rejected claims 1-10 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over U.S. patent no. 6,005,848 (hereinafter referred to as the "'848 patent"). Specifically, the Examiner stated that although the claims are not identical, they are not patentably distinct because providing multiple outbound codes to subscribers in the sub-talkgroup of the '848 patent is well known in the art in order to provide communications between the subscriber units in a one-to-one manner.

The applicants respectfully disagree. Claim 1 includes limitations of identifying a talkgroup of subscriber units, identifying, based on the identity of a first subscriber unit, a sub-talkgroup of subscriber units of the talkgroup, assigning an outbound code to subscribers in the talkgroup not part of the sub-talkgroup, assigning multiple outbound codes in a one-to-one manner to subscribers in the sub-talkgroup, and assigning, in a one-to-one manner, at least one inbound code to the sub-talkgroup.

The '848 patent merely teaches assigning a same outbound code to all members of the talkgroup. As a result, all speakers may hear their own voices. That is, in a multicast system, a problem arises as to how to convey voice information to all participants in a

multicast call without conveying the voice information back to the source of the voice information. Nowhere does the '848 patent address, let alone resolve, this problem. Claim 1 however, resolves this problem by teaching a subgroup of a talkgroup whose members are assigned multiple outbound codes in a one-to-one manner while members of the talkgroup that are not members of the subgroup are assigned a single outbound code. Therefore, nowhere does the '848 patent teach, or even suggest, the limitations of claim 1 of assigning an outbound code to subscribers in the talkgroup not part of the sub-talkgroup and assigning multiple outbound codes in a one-to-one manner to subscribers in the sub-talkgroup. Accordingly, the applicants respectfully request that claim 1 may now be passed to allowance.

Since claims 2-10 depend upon allowable claim 1, the applicants respectfully request that claims 2-10 may now be passed to allowance.

The Examiner rejected claims 11-14 under 35 U.S.C. §103(a) as being unpatentable over Cook in view of Grube. Claims 11, 12, and 14 provide for receiving inbound voice data from multiple subscriber units within a talkgroup, including from a first subscriber unit or an individual subscriber, transmitting first summed voice data including the voice data of the first subscriber unit or the individual subscriber to multiple subscriber units within the talkgroup via a first communication channel, and transmitting second summed voice data not including the voice data of the first subscriber unit or the individual subscriber to the first subscriber unit or individual subscriber via a second communication channel.

These limitations are not taught by Cook or Grube. Cook teaches a wireline conference bridge-type system, wherein each participant in a conference call has his or her own individual input and output channels, that is, individual input lines and output lines and a corresponding individual communication channel, that is, a time slot assigned to the individual participant. Thus, in Cook, the information conveyed by the conference bridge to each conference call participant may be individually tailored for the user.

A wireline system such as Cook imposes a capacity constraint on bandwidth limited wireless systems, for example when a group call includes a significant number of

participants, such as a wide area police call. In a wireless system, assigning an individual communication channel to each participant in a group call, via which individual channels information may be individually tailored for conveyance to the participant, may consume an excessive amount of capacity. Accordingly, wireless systems with talkgroup capability have the significant advantage of multicast, which cannot be implemented in wireline systems, wherein a central distribution point may convey voice information to all participants in the call via a single outbound RF channel. The issue then arises in a multicast system as to how to convey voice information to all participants in a multicast call without conveying the voice information back to the source of the voice information. This problem does not arise in, nor is it addressed in, Cook as Cook teaches nothing concerning a multicast system.

Claims 11, 12, and 14 teach a solution to this problem by providing that first summed voice data is transmitted to multiple subscriber units within the talkgroup other than the first subscriber unit via a first communication channel and second summed voice data is transmitted to the first subscriber unit via a second communication channel. Thus, claims 11, 12, and 14 maintain the efficiencies of multicasting that is unique to wireless communication systems while minimizing the problem of a conveyance of a speaker's own voice back to the speaker in a multicast call. Cook teaches nothing concerning a multicast call and therefore cannot teach the limitations of claims 11, 12, and 14 of transmitting first a summed voice data to multiple subscriber units within the talkgroup other than the first subscriber unit via a first communication channel and transmitting a second summed voice data to the first subscriber unit via a second communication channel.

Grube merely teaches a single outbound channel and therefore presents the very problem that is solved by the teachings of claims 11, 12, and 14. Therefore, Grube, too, does not teach transmitting first a summed voice data to multiple subscriber units within the talkgroup other than the first subscriber unit via a first communication channel and transmitting a second summed voice data to the first subscriber unit via a second communication channel. Since neither Cook nor Grube, individually or in combination, teach the limitations of claim 11, 12, and 14, the applicants respectfully request that

claims 11, 12, and 14 may now be passed to allowance.

Since claim 13 depends upon allowable claim 12, the applicants respectfully request that claim 13 may also be passed to allowance.

As the applicants have overcome all substantive rejections and objections given by the Examiner and have complied with all requests properly presented by the Examiner, the applicants contend that this Amendment, with the above discussion, overcomes the Examiner's objections to and rejections of the pending claims. Therefore, the applicants respectfully solicit allowance of the application. If the Examiner is of the opinion that any issues regarding the status of the claims remain after this response, the Examiner is invited to contact the undersigned representative to expedite resolution of the matter.

Respectfully submitted,  
Shaowei Pan et al.

By: 

Steven A. May  
Attorney for Applicants  
Registration No. 44,912  
Phone No.: 847/576-3635  
Fax No.: 847/576-3750